A markup of the changes made in claim 1 is shown below.

1. (TWICE Amended) A protein comprising an ~~the same or substantially the same~~ amino acid sequence represented by SEQ ID NO.:1~~, SEQ ID NO.:3 or SEQ ID No.:5,~~ or a salt thereof.

REMARKS

I. Amendments

The title of the invention has been changed per the Examiner's request.

Claim 1 has been rewritten to recite more clearly the claimed invention.

Support for new Claim 17 and 44 is found in the specification, as for example on pages 17 and 18.

II. Informalities

Applicants have amended the title of the invention as requested by the Examiner.

Applicants have amended the Abstract of the invention as requested by the Examiner.

Applicants ask to defer correction of the drawings until such time as it is apparent that allowable claims are ready to issue. Applicants will correct the reference to SEQ ID NO.s in the Drawings with preparation of the Formal Drawings.

The Description of the drawings has been previously amended. The following list is provided for the Examiner's use.

FIG 1&2	DNA sequence	(SEQ ID NO.:7)
	Amino Acid	(SEQ ID NO.:1)
FIG 4&5	HK05006	(SEQ ID NO.:1)
	HK05490	(SEQ ID NO.:3)
FIG 7-15	DNA sequence	(SEQ ID NO.:8)
	Amino Acid	(SEQ ID NO.:3)

FIG 16-20	HK05006	(SEQ ID NO.:1)
	HK05490	(SEQ ID NO.:3)
	HH02631	(SEQ ID NO.:5)
FIG 21-24	DNA sequence	(SEQ ID NO.:9)

III. Claim Objections

Claim 1 has been amended to reflect the elected subject matter, without prejudice to the filing of future continuing applications.

IV. Claim Rejections under 35 USC §101 and 35 USC §112 1st paragraph

Claims 1 and 2 stand rejected under 35 USC 101 because the Examiner asserts that the claimed invention lacks a credible, specific and substantial asserted or a well-established utility. Applicants respectfully traverse the rejection.

The rejection of Claim 2 is moot upon cancellation of the claim.

The rejection of Claim 1 should be withdrawn as the claimed invention does demonstrate an asserted substantial utility.

1) The Examiner agrees that the asserted utility to search for drugs as ligands or antagonists of the polypeptide of SEQ ID NO.:1 is a credible and specific utility (page 5). However the Examiner questions that the utility is not substantial. Applicants respectfully disagree.

The Examiner states that the specification does not characterize the polypeptide encoded by the polynucleotide of the claimed invention and thus the binding sites are not identified. Applicants respectfully disagree.

The specification clearly characterizes the claimed polypeptide well enough for the practice of the asserted utility. Unlike an EST, which is devoid of all structural information, the polypeptide of the claimed invention has been fully described by a complete amino acid sequence. Unlike an EST, the claimed polypeptide has been characterized so as to identify it as a G-protein conjugated type receptor (see for example

description of page 80, Example 2). Thus significant further experimentation is not required to further characterize the claimed polypeptide, as it is already been sufficiently characterized as to be able to be used in the asserted screening utility. These facts weigh against the Examiner's assertion.

The Examiner states that the specification does not disclose how to conduct an assay for possible transduction methods. Applicants assert that the Examiner can readily agree that, unlike an EST, the characterized and fully expressed polypeptide of the claimed invention is easily adapted to methods well known in the art for screening for ligand/antagonist activity, and as described, for example, on pages 61 to 65 of the specification. Furthermore, the polypeptide of the claimed invention is identified as a G-protein coupled receptor and as such, the G-protein transduction system is well known in the art. Applicants believe that the specific facts weigh against the Examiner's assertion.

The Examiner states that the specification does not state what class of drugs to use or what measurements to perform in screening. However, unlike an unidentified EST, the polypeptide of the claimed invention has been characterized as to similar receptor proteins and specific screening reagents are described in the specification, for example, on pages 65-67. The selection of specific compounds for testing in the asserted screening assay is not required as that is not a specific element of the claimed invention. It is sufficient that it is known that certain classes of compounds can be readily screened accordingly for the characteristics of the claimed polypeptide.

Thus, the asserted utility is in fact presented in a sufficient form so as to be readily used in the real world.

2) The Examiner agrees that the asserted utility to generate antibodies which specifically bind to the polypeptide of SEQ ID NO.:1 is a credible and specific utility (page 7). However the Examiner questions that the utility is not substantial. Applicants respectfully disagree.

Unlike an EST, the claimed polypeptide is a full-length amino acid which is characterized as to transdomain regions. One of ordinary skill in the art will be able to prepare and generate specific antibodies which bind with the extra-cellular domain regions of the claimed polypeptide, and even with specific targeting of extra-cell

membrane regions of the polypeptide. The claimed invention recites to a full-length receptor protein polypeptide, not just an EST fragment.

Thus, the asserted utility is in fact presented in a sufficient form so as to be readily used in the real world.

3) The Examiner's §112 1st paragraph rejection appears to hinge on the argument that the Applicant's have failed to "teach the skilled artisan how to use the claimed polypeptide for *any* purpose." (Page 9). Applicant's respectfully disagree.

Claim 1 has been amended to claim the specific full-length polypeptide of SEQ ID NO.:1. The specification clearly characterizes the claimed full-length polypeptide well enough for the practice of the asserted utility. Unlike an EST, which is devoid of all structural information, the polypeptide of the claimed invention has been fully described by a complete amino acid sequence. Unlike an EST, the claimed polypeptide has been characterized so as to identify it as a G-protein conjugated type receptor (see for example description of page 80, Example 2). Thus, applicants assert that they have taught how to make and use the claimed invention.

V. Rejections under §102(b)

This rejection is moot in view of the Applicants direction to cancel claim 2.

VI. Rejection under §112 2nd paragraph

This rejection is moot as Applicants have amended Claim 1 to remove the term "substantially".

VII. Supplemental IDS

Applicants enclose a supplemental IDS for the Examiner's consideration, and a copy of the European search report.

VIII. Conclusion

Reconsideration of the claims as amended in view of the traverse made above is solicited. Early allowance of the claims is requested. Should the Examiner believe that a conference with applicants' attorney would advance prosecution of this application, the Examiner is respectfully invited to call applicants' attorney.

Respectfully submitted,

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